Before the
Federal Communications Commission
Washington, DC 20054

In the Matter of:

Modernizing the E-rate Program	)	
for Schools and Libraries	)	WC Docket No. 13-184

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Comments of the American Library Association
in Response to Notice of Proposed Rulemaking
to Modernize the E-rate Program
(WC Docket No. 13-184)

I. Summary and Background

Summary

The nation is facing a sea change in what high-capacity broadband enables, and libraries are perfectly positioned to light the way forward and ensure no one is excluded from digital opportunity. SEALIGHTS is a shorthand for capturing the range of ways libraries serve the public, including **S**choolwork and sustained lifelong learning; **E**mployment and economic development resources; **A**ccess to technology, digital content & trained librarians; **L**iteracies of all kinds supported by library staff; **I**nnovation and inspiration; **G**overnment resources and services—increasingly online only; **H**ealth and wellness information; **T**raining and teaching; and **S**ocial connection—including seniors and those with special needs. Our nation's libraries represent an investment in lifelong learning and access for all—especially for the roughly 30 percent of Americans who lack home broadband access.

The E-rate program is the engine powering much of the digital transformation underway in America's 16,417 public library buildings. The potential of our internet-enabled economy to overcome barriers of geography and limited financial resources is vast, but libraries and schools—our most vital community institutions dedicated to education and learning inside and outside of the classroom—are in danger of falling behind. This potential risk and reward are at the heart of the most comprehensive review of the E-rate program since its inception.

The American Library Association (ALA) commends the Federal Communications Commission (FCC) for undertaking this thorough and ambitious Notice of Proposed Rulemaking (NPRM) [1] and welcomes the opportunity to help shape the future of this important universal service program. We deeply appreciate the leadership and support for the program from Acting Chairwoman Clyburn, Commissioners Pai and Rosenworcel, the hard work of FCC staff, and the commitment from members of Congress and the Administration who understand well what is now at stake for our nation's future economic competitiveness and the quality of life—including educational opportunity—in our communities.

Recommendations

ALA supports all three of the interconnected goals of this NPRM. The original intent of the E-rate program and our aspiration is captured in Goal 1: Ensuring schools and libraries have affordable access to 21st century broadband that supports digital learning. Achieving this goal will demand not only strategic goals, metrics and future thinking, but also the careful

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[1] Notice of Proposed Rulemaking , WC Docket No. 13-184, released July 23, 2013, available at http://www.fcc.gov/document/fcc-launches-update-e-rate-broadband-schools-and-libraries.

stewardship of the program outlined in goals two and three—maximizing the cost-effectiveness of E-rate funds and streamlining program administration. As it has in other proceedings related to the modernization of other Universal Service Fund (USF) programs, ALA supports the E-rate's increased focus on high-capacity broadband availability and affordability.

President Obama's call to action through the ConnectED initiative challenges stakeholders to envision a broadband future in which our students and communities have access to the kind of broadband capacity that supports digital learning and enables innovation.[2] ALA appreciates the President's call for greater broadband investment and his recognition that multi-user environments such as libraries and schools need much greater broadband capacity than the average residential user. The term "ConnectED" focuses attention only on the value of broadband for education, which is only one of the many benefits that high-capacity broadband can provide to our nation.

ALA respectfully suggests that the term "ConnectUS" provides a more complete picture of what can be accomplished through the E-rate program to support libraries and schools and the communities they serve nationwide. Connecting libraries and schools should be considered as part of a comprehensive effort to extend high-capacity connections to everyone across the nation. The "connected library" (i.e., one connected to high-capacity broadband) serves as the "gateway" to expanding broadband access and adoption to the surrounding community. Libraries accomplish this in two ways. First we support the students and community members that take advantage of our SEALIGHTS approach to comprehensive services. Second, broadband networks deployed to libraries and schools can facilitate the build-out of additional broadband facilities to surrounding homes, businesses, community centers and government offices.

These goals, no matter what terminology is used, cannot be achieved without adding more funding to the E-rate program. ALA and others have noted the "E-rate fiscal cliff"[3] we face as requests for priority one (P1) services alone consumed all the funds available in 2013. The current amount of funding does not reflect the economic reality faced by libraries and schools as they try to upgrade their broadband services. This proceeding provides an important opportunity to add more funding to the program and increase the value of the program to libraries and our communities.

The NPRM challenges us to consider both granular changes and major restructuring, and we appreciate the broad-ranging opportunity to improve the efficiency and effectiveness of the program. Some libraries do not participate—because of the complexity of the application process, high prices for services even after the E-rate discount, unpredictable (and routinely unavailable) funds for Priority Two services, and delays and difficulties of consortia applications to name a few reasons. ALA proposes several changes below to help make the program more attractive and beneficial to libraries.

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[2] The President's announcement is available at http://www.whitehouse.gov/the-press-office/2013/06/06/president-obama-unveils-connected-initiative-bring-america-s-students-di.
[3] A report by ALA, available at http://www.districtdispatch.org/2013/02/e-rates-looming-fiscal-cliff/.

In these comments we propose the FCC:

Ensure Affordable Access to 21st Century Broadband

- **Increase E-rate funding to jumpstart and sustain high-capacity connections** that support digital learning and economic development through libraries and schools. The current cap on the program consistently falls far short of meeting demand for internet-enabled education and learning services, and technology trends clearly show needs and future capabilities only are growing. To address this we support a two-pronged approach: 1). New temporary funding is needed to support the build-out of high-capacity broadband networks and provide increased support for libraries with the lowest levels of broadband capacity. 2). A permanent increase in the funding cap is not only justified but is a sound investment for the country.
- **Lower barriers to deployment of dark and lit fiber and ownership of wide area networks when they are shown to be the most cost-effective** ways to deliver high-capacity broadband to libraries and schools. ALA continues to support technology neutrality, though we generally prefer technologies that are easily scalable. However, we affirm that libraries and schools should be able to determine the most cost-effective technology solution within reasonable return on investment (ROI) timeframes. Much emphasis is placed on purchasing services but we think the Commission should also encourage libraries to participate in consortia broadband networks, when they are a cost effective way to secure connectivity;
- **Provide additional E-rate discounts for remote rural libraries** that often confront the greatest broadband costs and availability issues. In this context, it is important to recognize that many libraries report that they often struggle to get one bid to their RFPs for service—let alone more;
- **In cooperation with the library and schools communities, develop scalable bandwidth targets and benchmarks for measuring progress against these goals.** ALA recommends looking to newly developed public access technology benchmarks[4] and the National Broadband Plan[5] to inform these targets for libraries. We also suggest FCC targets must allow for significant local differences, including community size and current broadband options. We oppose rigid "one size fits all" mandates or burdensome metrics that run counter to simplification objectives. We comment on a number of considered changes that run this risk below.

Maximize Cost-Effectiveness of the E-rate Funds

- **Changes to e-Rate that involve cuts to legacy services should be phased in rather than imposed as flash cuts**, as some libraries rely on these services. The Commission should correlate any phase-outs with the E-rate funding year, which is typically longer

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[4] Edge benchmarks available at http://www.libraryedge.org/benchmarksv1. Benchmark 9.2 recommends that each public Internet user is allocated at least 1 mbps download of network bandwidth capacity.
[5] The National Broadband Plan, developed by the FCC, is available at http://www.broadband.gov/plan/.

than the calendar year as applicants begin the procurement process a number of months prior to the opening of the application window;

- **E-Rate related data should be routinely made available to the public for analysis**, and we recommend that the Commission also provide to the public its own periodic analysis of collected data. Data that can offer purchasing guidance – such as service provider rates or state master contracts would be especially useful in terms of addressing cost effectiveness issues.
- **Enforce the Commission's Lowest Corresponding Price (LCP) rule.** For example, a LCP review should be generated whenever a provider's bid for broadband services is above a certain threshold;

Streamline the Administration of the E-rate Program

- **Speed the application review process.** One of the most frustrating aspects of the E-rate program for library applicants is that many are not notified by USAC that they have been funded (or not) by the July 1 start of the funding year. Several suggestions for how to address this issue are discussed below;
- **Streamline the application review process to incent consortium purchasing** and replace E-rate program procurement rules with those of the applicable locality or state;
- **Streamline the review process for applicants requesting a modest amount** (e.g., *de minimus*) of funding. We suggest this threshold be $5,000 per applicants or per funding request;
- **Replace E-rate program procurement rules with those of the applicable locality or state.** The E-rate program is extremely proscriptive when it comes to procurement policies, and this is unnecessary as libraries already have procurement rules for most everything else they need to purchase to operate. If the Commission does not want to exempt all applicants from its procurement rules, we suggest it set a *de minimus* funding request for exemption;
- **Allow applicants to receive their E-rate funds directly from USAC**;
- **Eliminate the Form 470 and allow applicants to file an "evergreen" Form 471** for multi-year contracts; and
- **Avoid implementing changes designed to increase broadband availability or cost effectiveness that make E-rate more complex for applicants and administrators.** Throughout the review of this NPRM ALA has noted areas that appear in conflict with the Commission's goal to streamline the program**.** These are summarized in Section V below.

Finally, we again note the vast range of issues outlined in this NPRM and respectfully request that the Commission consider a faster implementation schedule for "consensus" changes and a more deliberate consideration of the more sweeping changes. For instance, the Commission could move swiftly to simplify and improve the application process so that more libraries and schools may benefit from the program. In some instances the more complicated changes across the library, school, provider, and other key communities may suggest a further rulemaking notice prior to initiating new rules on these issues. Debate and disagreement in some areas should not inhibit forward movement to further modernizing the program.

Background

The American Library Association (ALA) is the world's oldest and largest library association—representing over 58,000 members. As most of our comments will focus on the "how" questions of the NPRM, we would like to first underscore the foundational "why" investing in our nation's libraries' internet access, telecommunications and advanced communications services matters for the United States.

Libraries combine a triple play of technology infrastructure, robust digital resources and trained staff to support digital literacy and competency. Approximately 77 million people use public library computers and networks in a given year, and meeting social connection, education and employment needs were the top three reported uses of this library public access technology.[6] Below we detail the many ways libraries actively engage with their communities.

The Critical Role of Libraries in a Digital Age

<u>Schoolwork and sustained lifelong learning</u>
As mentioned at the beginning of these comments regarding "SEALIGHTS," libraries are partners with our nation's schools in supporting schoolwork and education. Often, the busiest time of day for public libraries is in the after-school hours when many K-12 students continue their learning and tackle homework, often using library Wi-Fi with personal or school-provided devices. Virtually all libraries offer research databases, and 82 percent offer online homework resources to their communities. Non-traditional students such as those who are homeschooled (more than 1.5 million people), are seeking their General Equivalency Degree (GED) or are pursuing distance education may rely in particular on these educational and technology resources provided by their public library. The GED, which over 700,000 people now take, will move entirely online in 2014, demanding basic computer skills, as well as curricular knowledge.

Alaska's Delta Community Library (serving 991 residents) reports seeing a major increase in the number of distance education students who use the library since they upgraded their internet equipment and connection speed through the E-rate program. Library Director Joyce McCombs recounts:

> Students of every age—from kindergarteners in home school through post graduate university candidates—use our reliable connection to view webcasts, participate in seminars, upgrade their skill levels for work, and have their (online) tests proctored by our library staff. Not only is it convenient to have a test proctored at the library, it's also economical (saving a four-hour, 200-mile round trip to the University of Alaska at Fairbanks or an expensive airline trip to a campus out of state). At last count, we proctor for more than a dozen different Universities, as well as online traffic school, various professional licensing examinations (traffic flaggers, food handlers, boiler operators, etc).

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[6] See Becker, Samantha, Michael D. Crandall, Karen E. Fisher, Bo Kinney, Carol Landry, and Anita Rocha (2010). "Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries," (IMLS-2010-RES-01). Institute of Museum and Library Services. Washington, D.C. Available at http://www.imls.gov/assets/1/AssetManager/OpportunityForAll.pdf.

Employment and economic development

Libraries also address retraining needs beyond the classroom. More than 80 percent of Fortune 500 companies post their job openings online only and require online applications. Fifty percent of today's jobs require some technology skills, and this percentage is expected to grow to 77 percent in the next decade. According to a 2010 IMLS study, 30 million library users reported going to the library for employment-related activities in a 12-month period.[7] This vital role of public libraries in connecting community members with needed resources and information was formally acknowledged in 2010 with a Training and Employment Notice from the Department of Labor to local workforce agencies. The agencies were encouraged to partner with public libraries to extend their career and employment services, known as One-Stop Career Centers, to job seekers and unemployed workers.[8]

Access to technology, digital content & trained librarians

Libraries increasingly serve as the gateway for bringing the benefits of the technology to the attention of the general public. The availability of free computers and internet access now rivals book lending and reference expertise as a vital service of libraries. In a national survey of Americans ages 16 and older, the Pew Internet Project found that 77 percent of Americans say free access to computers and the internet is a "very important" service of libraries (compared to 80 percent who say borrowing books and reference librarians are "very important" services).[9] The information economy depends on the pervasive use and integration of technology, and libraries make it easier for everyone to successfully use technology to aid in determining their own economic future. More than 62 percent of libraries report they are the only provider of free access to computers and the internet in their communities.[10]

Literacies of all kinds

Literacy remains central to the ability to learn, grow and achieve in society. Libraries support all literacies—from basic reading and writing to digital literacy to literacies in specialized areas like health, financial or government information. Access to technology is only a part of the solution necessary to ensure digital inclusion and individual empowerment; increasing digital skills and competencies make up the rest of this equation. Libraries have several significant roles in the transformation of "information economy" into the "knowledge society." Libraries expand the breadth and availability of information and they train people how to make meaningful use of that information.

Innovation and inspiration

Libraries promote innovative, 21st century learning. For example, Chicago Public Library's YOUMedia and The Labs at the Carnegie Library of Pittsburgh offer young people an opportunity to produce rich, multi-media products using the latest technology tools while

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[7] Becker, S. et al. (2010). Available at http://www.imls.gov/assets/1/AssetManager/OpportunityForAll.pdf.

[8] Available at http://www.imls.gov/department_of_labor_provides_guidance_to_workforce_agencies.aspx. For general information about the Department of Labor's One-Stop Career Center program, see http://www.dol.gov/dol/topic/training/onestop.htm#.UJlj_W_A8Ww.

[9] Available at: http://libraries.pewinternet.org/2013/01/22/library-services/.

[10] Available at: http://plinternetsurvey.org/sites/default/files/publications/CommunityAccessBrief2012.pdf.

connecting these learning experiences directly back to school and careers. Such experiences foster creativity and develop critical thinking skills that are integral to long-term achievement. Digital learning labs are not confined to large urban libraries, however. The Allen County Public Library in Fort Wayne, Indiana, provides a maker space to encourage innovation and the Howard County Public Library in Maryland houses a Learning Lab to engage young adults in using new and emerging media and technology.

Government resources and services

Government offices at all levels increasingly require the public to communicate and interact with government officials via the internet and individuals who lack digital access or skills may be excluded from these discussions.[11] Virtually all libraries (92 percent) report staff help people understand and use government websites.[12] The March 2010 report on "Broadband Adoption in Low-Income Communities" highlights the critical role of libraries in ensuring access to essential government information and services:

> Government agencies, school systems, and large employers increasingly privilege web-based access to many basic services, including job and benefits applications. Because many of the constituents for these services have limited Internet access and/or limited Internet proficiency, these measures often shift human and technical support costs onto libraries and other community organizations that do provide access, in-person help, and training. Fuller funding of these intermediaries is the best means of assuring a meaningful broadband safety net and a stronger pathway to adoption in these communities.[13]

Health and wellness information

Whether connecting with your doctor via email, receiving your electronic medical health records, signing up for Medicare Part D, or researching a medical condition or procedure, every person needs a computer and an internet connection. According to *Opportunity for All*, about 37 percent of library computer users focused on health and wellness issues. Many of these people (83 percent) reported doing research about a disease, illness or medical condition. Among those who reported researching diet and nutrition information issues online, 83 percent decided to change their diet.[14] With the launch of the health insurance marketplaces in states nationwide, America's libraries anticipate a surge in questions and a desire to research new insurance options.[15]

Training and teaching

From the perspective of highly connected, digitally literate individuals, adding digital components to everyday tasks—such as moving government forms or job applications online— can appear to be an easy and efficient way to improve traditional paper-based bureaucratic processes. Yet for the more than one-third of the U.S. population without regular internet access or basic digital literacy skills, this shift often poses an overwhelming challenge that makes it

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[11] See "Public Libraries & E-Government, available at http://plinternetsurvey.org/sites/default/files/publications/EgovBrief2012.pdf.
[12] Ibid.
[13] See http://webarchive.ssrc.org/pdfs/Broadband_Adoption_v1.1.pdf, p. 51.
[14] See *Opportunity for All*.
[15] IMLS developed a website for e-health and libraries, available at http://www.imls.gov/about/ehealth.aspx.

impossible to take advantage of the resources and opportunities available online. Close to 90 percent of libraries report offering some kind of technology training—whether informal assistance, training by appointment or formal classes.[16]

Social connections
Libraries always have served as a vital "third place" in America's communities and this role is only heightened in the digital age. In FY 2010, libraries provided 3.75 million programs, more than ever before.[17] A growing number of library programs are enabled through technology, such as a Halloween "Skype session" with author Anne Rice reading her new book from her home in California to an audience at Nashville Public Library, or the Volunteer Lawyers Project[18] that connects rural Mainers with volunteer lawyers in real time on topics ranging from filing taxes to renter rights and responsibilities. But library technology also connects people at a much more personal level, such as a mom without home internet access in Neligh, Nebraska, who keeps in touch with her son serving in Afghanistan via Skype at the library or a woman at the Wetumpka Public Library in Alabama who watched her granddaughter graduate from high school in Germany.

Growing demands necessitate greater broadband capacity

As illustrated above, libraries serve as a critical link in providing their communities with access to technology and the skills to take advantage of its benefits. E-rate has been a tremendous support in building and sustaining public library technology capacity, yet today the pressures on library technology infrastructure outpace our ability to meet community needs. Taken altogether, the pressures on library technology infrastructure outpace our ability to meet community needs. The number of computers and computer users, as well as the proliferation of high-bandwidth applications, outstrips our internet capacity. The number of computers in public libraries, for instance, doubled between FY 2000 to FY 2010. Public access computer use continues to be one of the fastest growing services in public libraries.[19]

It is not just demand that is rising. Services are evolving. The experiences of libraries deploying gigabit speeds on behalf of communities in Chattanooga, Tennessee, and Cuyahoga County, Ohio, increasingly are the norm for enabling innovation. Cuyahoga supports learning at all ages from its iPad labs designed to support preschool literacy to digital animation and coding clubs that support STEM learning for school-age youth to partnerships with Case Western Reserve and Cleveland State universities that provide continuing and remedial education to prepare students for college and the workforce. The library's gigabit network allows all of these activities to happen simultaneously to patron Wi-fi use and other technology classes. The library also is enabling people to create as well as consume content, including recording and sharing video and audio portfolios. "Our gigabit connection ensures that there are no limitations on the

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[16] Available at: http://www.plinternetsurvey.org/sites/default/files/publications/2012_plftas.pdf (Figure 19).
[17] See the IMLS FY2010 report, available online at http://www.imls.gov/assets/1/AssetManager/PLS2010.pdf.
[18] Senate testimony from Maine State Librarian Linda Lord available at: http://www.districtdispatch.org/wp-content/uploads/2013/07/E-rate-2.0-Testimony_Linda-Lord_Maine-State-Librarian_7_15_13_FINAL.pdf.
[19] Ibid.

opportunities that we can offer the citizens of Cuyahoga County," said library executive director Sari Feldman.

While some schools and libraries do have access to networks like Cuyahoga County, many do not. Those that have this access stand to gain large benefits, while those that don't may become increasingly disadvantaged. A July 2013 report from the International Federation of Library Associations and Institutions (IFLA) succinctly states the risk we face as its top trend to watch: New technologies both expand and limit who has access to information.[20] We must ensure that libraries can bridge this gap and help restore U.S. global competitiveness rather than slipping further behind. Our libraries and the communities we serve need a streamlined and future-focused E-rate program.

II. Goals and Measures

ALA commends the foresight of the Commission to structure the NPRM around specific goals that guide the program into the future. We also note that each—ensuring libraries and schools have affordable access to 21st century broadband that supports digital learning, maximizing the cost-effectiveness of E-rate funds, and streamlining the administration of the E-rate program—could stand alone but together provide a comprehensive approach and smart stewardship of the program. While we do agree with many commenters that the program has been successful overall, we believe that the program should be re-considered through the lens of 21st century technologies, 21st century community needs, and lessons learned from 15 years of program experience.

Appropriate Bandwidth Targets for Libraries

ALA commends the foresight of the Commission to structure the NPRM around specific goals that guide the program into the future. We also note that each—ensuring libraries and schools have affordable access to 21st century broadband that supports digital learning, maximizing the cost-effectiveness of E-rate funds, and streamlining the administration of the E-rate program—could stand alone but together provide a comprehensive approach and smart stewardship of the program. While we do agree with many commenters that the program has been successful overall, we believe that the program should be re-considered through the lens of 21st century technologies, 21st century community needs, and lessons learned from 15 years of program experience.

The Commission seeks comment on appropriate bandwidth targets for libraries (¶ 25). For nearly two decades, a series of "Public Libraries and the Internet" national studies has tracked the progress of libraries connecting to the internet, both to administer and manage library services and to provide public access. Before the E-rate program, for instance, only 28 percent of our libraries provided public internet access. Today virtually all libraries do so. The percentage of libraries providing free Wi-Fi access grew from 37 percent in 2006 to 91 percent in 2012, usually

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[20] See "Riding the Waves or Caught in the Tide," http://trends.ifla.org/files/trends/assets/insights-from-the-ifla-trend-report_v2.pdf.

sharing the same bandwidth as the wired public access computers. Over the last 15 years the number of computers in libraries has doubled, and libraries and our users are increasingly using cloud-based and interactive Web 2.0 services. We clearly have moved from a goal of basic connection to a deep need for high-capacity connections.

Libraries have developed various benchmarks and targets for their services over the years— usually at the state level. Two years ago, however, a coalition of library groups and the International City and County Management Association (ICMA) came together to develop a framework of public access technology benchmarks. The Edge Initiative[21] is a voluntary assessment program that provides libraries with benchmarks, best practices, tools and resources that support continuous improvement and reinvestment in public technology services.

One of the benchmarks states: "Libraries have sufficient devices and bandwidth to accommodate user demand" and includes suggested measures for the download and upload speeds libraries should have today. The measure is based on the number of devices provided by the library and uses a formula to factor in wireless users. In developing this per-device approach and other benchmarks, we repeatedly heard that it was very important to libraries that our measures reflect the range of library and community sizes (including square footage, number of library staff, number of library users, etc.). What 100 Mbps enables for a city library with an average of 165 computers and hundreds of thousands of users is quite different from what might be enabled for a rural library with an average of 11 computers and a small community size.

The Edge benchmark recommends 1 Mbps download of network bandwidth capacity *per device* to meet user demand *today.* Benchmark goals for 2015, 2018 and beyond should obviously aim higher, particularly as Akamai data shows the average connection speed in the U.S. practically doubled (from 4 Mbps to 8 Mbps) in the five years from 2008-2103[22] and we can anticipate this trend continuing, if not further accelerating, in coming years.

The primary challenges libraries face in meeting their connectivity goals are no surprise: access and cost. As the Commission is already aware, the Commission's 2011 survey found that "[n]early 80% of all [schools and libraries in the E-rate program] say their broadband connections do not fully meet their current needs."[23] More than one-quarter of rural libraries reported in 2011 that they were at the maximum speed available in their community, and about 30 percent of all libraries report they cannot afford to increase their bandwidth.[24] A further challenge is that non-IT specialists (public service staff or library directors) provide the majority of IT support services in libraries.

Because libraries do not have a set enrollment like schools, the FCC should adopt future-looking bandwidth targets for libraries based on a per-device formula that includes some allowance for

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[21] Available online at www.libraryedge.org.

[22] See www.akamai.com/stateoftheinternet.

[23] See the 2010 E-Rate Program and Broadband Usage Survey: Report, Federal Communications Commission, Wireline Competition Bureau, DA 10-2414, released Jan. 6, 2011, available online at www.fcc.gov.

[24] Available online at http://www.plinternetsurvey.org/sites/default/files/publications/2011_plftas.pdf. Figure 25.

BYOD (bring your own device) and wireless access (like 1:2 or 1:3 library-owned to patron-owned devices).

Our comments on other proposed goals and measures will follow the lead laid out by the Commission and are incorporated in the following sections.

III. Ensuring Schools and Libraries have Affordable Access to 21st Century Broadband that Supports Digital Learning: Goal 1

ALA agrees with the Commission when it states in paragraph 63 that the growing demand for priority one services is driven by the need for greater bandwidth connections. As mentioned previously, libraries have made significant strides in acquiring higher broadband speeds. However, the increased number of patrons using the public access computers and Wi-Fi in conjunction with the increase in bandwidth-intensive services creates a different issue. In about 82 percent of libraries with wireless access, the workstations and the wireless access share the same connection.[25] This adversely affects the user experience to a degree that though the library technically has broadband access, the user experience is sufficiently slow as to prevent a quality experience. To ameliorate this situation, as well as prepare for future trends, we anticipate continued high demand for priority one services. Reforms to the E-rate program are needed but they alone will not completely address the severe underfunding of the program. We do, however, support the Commission's focus and provide some specific recommendations that we believe begin to address the issue of affordable access to high capacity broadband below.

Funding for Broadband Connections. (¶67-89)

Support Fiber When Feasible

ALA very much concurs with the Commission that for the great majority of libraries, fiber connectivity offers the best, long-term way to ensure that libraries will have access to adequate and scalable bandwidth. In 2009 ALA's Office for Information Technology Policy (OITP) released a publication titled *Fiber to the Library: How Public Libraries Can Benefit.*[26] As we state in this publication, "Fiber can offer much more bandwidth and facilitate the addition of even more capacity…. For many libraries, then, fiber is the technology of choice for the twenty-first century." Although fiber is the medium of choice, we realize that in remote areas (e.g., in many parts of Alaska) the cost for fiber installation is likely prohibitive. For such libraries, alternative forms of connectivity (e.g., terrestrial wireless, satellite) must still be viewed as high-end broadband technologies and still be supported services.

While ALA strongly endorses fiber where it is economically feasible, 2011 ALA library survey data show that just 36 percent of our nation's public libraries have fiber connections.[27] This means without a significant investment in fiber many of our libraries already have—or will

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[25] See http://www.plinternetsurvey.org/analysis/public-libraries-and-broadband.

[26] See http://www.ala.org/offices/files/oitp/PDFs/fiber%20brief_%20published.pdf.

[27] See 2010-2011 Public Library Funding and Technology Access Survey: Survey Findings and Results. June 2011. Figure 21. Also see http://www.plinternetsurvey.org/sites/default/files/publications/2011_plftas.pdf.

soon have—reached the relatively low bandwidth limits of their current copper circuits. Within the context of the E-rate program, our position to address this issue is relatively simple: the program should encourage applicants to move to a fiber solution, and libraries (and schools) should have a variety of options to choose from in satisfying their need for fiber connectivity. Therefore, at face value, we support the Commission's proposal (¶70-75) to allow E-rate funds to be used for modulating electronics and special construction charges for leased dark fiber when doing so is the most cost effective solution. The current rule skews the decision of libraries and schools to move to lit fiber even in cases when dark fiber may be a less expensive alternative. Placing both lit and dark fiber on a "level playing field" makes sense and gives libraries more options. Because fiber construction can be costly, we propose that capital costs to install fiber that are greater than $100,000 on a per-library site basis be amortized over at least four years. We also request that the Commission carefully review the Brooklyn decision[28] to ascertain whether the current rule is sufficient for addressing the cost of fiber build-outs. We are aware that fiber construction costs can be substantial and have no desire to cause an undue or substantial drain on limited funds. ALA seeks to make more options available to libraries but wishes to do so prudently.

Allow WAN Circuit Ownership When Cost Effective

In further support for options on broadband connectivity, libraries should be able to own their wide area network (WAN) circuits when this option is cost effective (¶79-82). It is not a good stewardship of E-rate funds (or local library funds) to pay more for leasing a circuit when ownership is less expensive. For WAN ownership to be cost effective, the initial costs to install fiber must be amortized over a given period of time, and, in parallel with our comments in the previous paragraph, we recommend at least four years. We refer to an the example from the University of Wisconsin's BTOP project that showed the return on investment (ROI) for owning fiber was approximately 4-6 years. We suggest that the Commission adopt a similar period for amortizing build-out costs.

Move the Internet Connected Router From P2 to P1

In paragraph 85, the Commission asks if there are any internal connection services (priority two) needed for high-capacity broadband connectivity that should have some higher priority. The first router located at the point of demarcation where the broadband facility terminates at the library or school is essential to high-capacity broadband connectivity, and we recommend moving the cost for this hardware into priority one. Under some special conditions,[29] a router currently qualifies for P1 funding. But these conditions often cause some confusion and repeated inquiries by USAC's Program Integrity Assurance (PIA) unit seeking supporting documentation from the library on these conditions. In keeping with the Commission's desire for program simplicity and to support high-capacity broadband connectivity, we think P1 support for this first router makes sense.

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[28] See http://www.universalservice.org/_res/documents/about/pdf/fcc-orders/2000-fcc-orders/FCC-00-354.pdf.
[29] See the FCC Tennessee decision. Released August 11, 1999. See http://www.e-ratecentral.com/FCC/fcc99216.txt.

Avoid Setting a Maximum Cost Per-Megabit

We agree that to meet the Commission's proposed connectivity goals, the average recurring per-megabit cost of bandwidth will need to come down substantially (¶88). However, we do not think that setting a maximum cost per megabit (¶89) will be in the best interest of libraries, nor will it necessarily result in a reduction in broadband prices. There is a risk that providers may choose not to provide service at all if they must adhere to a price point that does not allow them to cover their costs. While opposing hard maximums, we support the Commission establishing per-megabit price guidelines or targets. These should be based on real prices libraries are paying—can be ascertained from information providers must already collect—and should cover a range of speeds in the diverse markets in which libraries operate across the country—including variances in urban and rural areas. (We have more suggestions on broadband price guidelines later in our comments on cost effectiveness.)

Phasing Down Support for Certain Services (¶90-114)

Approach Phase-Outs With Care

ALA supports the Commission's goal of transitioning the E-rate program to support broadband services and appreciates the focus on funding those services that promote the use of high-capacity broadband services. At the same time, ALA echoes the Commission's concern that any proposed changes not unduly cause financial difficulty for applicants. Changes should be phased in rather than flash cuts, and the Commission should correlate any phase-outs with the E-rate funding year, which is typically longer than the calendar year as applicants begin the procurement process a number of months prior to the opening of the application window. Applicants should be notified of a phase-out for any and all services at least one full funding year prior to the start of the phase-out program. In the review of which services should be under consideration, ALA encourages the Commission to accomplish all three of its goals in the process: focus on services needed for high-capacity broadband, consider what is most cost-effective, and simplify rather than add burden to the application process.

After significant consultation with a range of library constituents, ALA concludes that a $125 million "savings" by phasing out support for basic maintenance of internal connections (¶101) is a sound first step. Removing BMIC as an eligible service may also address an area where there has historically been waste, fraud, and abuse.

One of the most difficult areas for the library community concerns support for basic voice services or POTS (¶105-110). In 2010 ALA supported a phase-out of POTS in recognition of the national trend—by consumers, providers, businesses, and in many instances by libraries—to move away from basic voice telephony to solutions available via high-capacity broadband such as VoIP. ALA also supported the Commission's revision of the USF generally to support and promote these advanced services.[30] Since that time, we have revisited our position and the

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[30] "ALA proposes that the Commission develop a specific timeline for phasing out support of voice by the E-rate program. Such a timeline should be modeled on a sliding scale such that applicants can best budget for the resulting

influencing factors that lead to it. We continue to support a phase-out program but wish to refresh the record with some additional recommendations that specifically acknowledge the impact on some of the rural and most remote library applicants. One state, for instance, estimated it would lose about 25 percent of its library applicants if POTS was eliminated and this would create a significant financial hardship for the libraries. We have heard from a geographically diverse representation of the library community that an alternative to basic voice service is either not available, is still cost prohibitive or the broadband speeds are not fast enough to make VoIP a reliable solution.

Withdrawal of all support for POTS could impose a significant financial burden on these libraries for an indeterminate period of time despite recent gains in broadband capacity. ALA thus recommends three measures to ameliorate the impact of withdrawing E-rate support for POTS:

- Support for basic telephony services should be phased out gradually over a period of five years.
- Libraries located in areas where alternatives to POTS are either not available or cost prohibitive (based on cost guidelines developed by USAC) should be designated as "exempt" and should be able to receive support for an application requesting POTS. ALA recommends that this rule be revisited every two years under the assumption that in due course, high-capacity broadband will be available in all but the most remote areas of the country.
- These libraries should be given additional support for the deployment of sufficient broadband capability to ensure that VoIP provides an acceptable and satisfactory level of service.

ALA endorses the principle that reforming the E-rate program will provide incentives to deploy and use high-capacity broadband networks in a way that will strengthen our nation, as long as the transition is managed smoothly over at least a five-year process.

Avoid Redefining Educational Purposes

As the Commission considers phasing out certain services to give preference to those that support high-capacity broadband, ALA does not find it necessary for the Commission to redefine educational purposes (¶99-100) in order to achieve its goal and is confident that a phase-out program is not dependent on changing the current definition. Redefining the educational purposes standard and requiring applicants to ascertain whether services are either directly used by students or patrons and teachers or library staff for primarily educational purposes would be extremely difficult for applicants to certify and for USAC to monitor. It is likely that PIA review could be held up unnecessarily and delay disbursement of funds. The Commission developed the broader definition of "educational purposes" in its Second Report and Order (2003) to address problems in this area, and we do not want to go back to a pre-2003 definition.

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impact." See, ALA comments submitted to FCC on July 9, 2010 (available at http://www.ala.org/offices/oitp/publications/officialfilings/officialfilings#erate).

Modifying the Discount Matrix

ALA takes seriously the question posed in paragraph 117 about the trade-offs that applicants may be asked to make in order to free up funds for high-capacity broadband: should the FCC gradually increase the minimum percentage of matching funds that E-rate applicants must provide when seeking E-rate support? We understand that schools and libraries at the 90% discount level account for a disproportionate draw on available funding, which certainly must be balanced against the relative poverty in these communities and the financial ability of institutions in these areas to absorb additional costs.

Among library applicants alone, the 15 percent of libraries in the 90% discount level that applied for E-rate discounts in 2010 (for both priority one and two services) received 31percent of the funding to library applicants provided that year. ALA continues to explore impacts of modifying the discount matrix for library applicants specifically related to increasing the amount applicants must provide in P2 (see Figure 1).
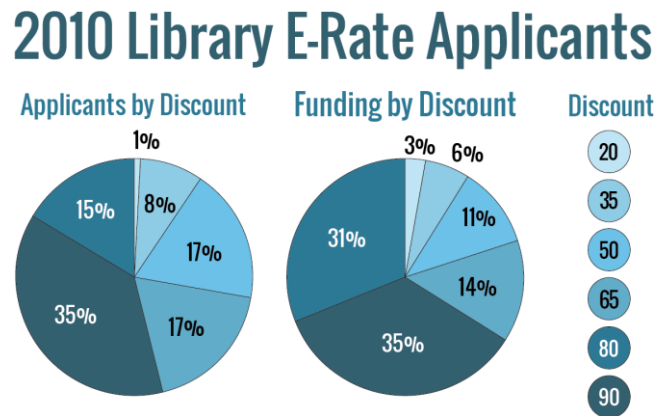
Figure 1: Data analysis provided by Community Attributes, Inc.

ALA takes this opportunity to thank USAC for releasing its 2010 data as without access to this wealth of E-rate data we would not have been able to come to some of the conclusions we have for this NPRM. Additionally, we are pursuing further models based on analysis of the 2010 data. We believe that a number of concerns from the applicant and larger stakeholder communities could be assuaged with access to complete data already collected as part of the application process. We respectfully urge the Commission to work with USAC to ensure that E-rate data is routinely made available to the public and be provided in a format that it most useful to stakeholder that wish to research impacts of policy positions on applicants and in furthering Commission goals. Additionally, we recommend that the Commission itself provide to the public a periodic analysis of collected data.

The FCC should be more cautious in regard to priority one discounts. When it comes to telecommunications and internet access services, ALA respectfully disputes the suggestion that applicants simply need to negotiate better to bring down costs. State and local libraries report they often struggle to get one bid to their RFPs for service—let alone more. This lack of competition makes it difficult—particularly for rural libraries—to negotiate affordable contracts. Many libraries report they are not confident they could afford to purchase needed services if discounts were reduced.

ALA continues to conduct analyses to ascertain how libraries would be affected and how much funding could be impacted with proposed changes in the discount matrix. We expect to provide detailed information in our reply comments.

Support Based on District-Wide Eligibility and Application by School District

The Commission proposes that all schools within a school district submit any E-rate applications for P1 or P2 services at the school district level, not by individual school (¶126-132). ALA proposed this in its 2010 comments and still supports it in 2013.[31] Furthermore, we agree with the various arguments in favor of this change stated in the June 2013 White Paper filed by the State E-rate Coordinators Alliance (SECA).[32] At the same time, we understand that this may be of concern to some schools. We therefore request that, if the Commission continues to allow schools to determine their discount rate based on individual school poverty data, libraries be allowed to determine their discount based on individual school poverty data, too.

More Equitable Funding for Rural Schools and Libraries (¶133)

Fifty-seven percent of America's public libraries serve communities with fewer than 10,000 residents. These small and rural libraries, from Maine to Arizona and states like Arkansas and Wyoming in between, serve as community centers and technology hubs. Compared with their urban and suburban peers, they are more likely to be the only source of free access to computers and the internet in their communities. But there is a growing divide among these libraries in the broadband speeds they have available or can afford. In 2007, about 13 percent of urban libraries had maximum public access internet speeds of 10 Mbps or higher, compared with 7 percent of their rural counterparts. Five years later, this is true for 57 percent of urban libraries but only 17 percent of rural libraries. Thus the urban/rural broadband discrepancy has grown dramatically wider over the past five years. This broadband disparity impacts the digital services smaller and rural libraries are able to offer, including e-books, which are available in 92 percent of urban libraries and only 65 percent of rural libraries.[33]

Many, if not most, rural libraries pay disproportionately high costs for broadband services. For example, one library in Arizona's Apache County pays more than $18,000 for 5 Mbps metro Ethernet service compared to a Maricopa County library that pays $11,000 for 100 Mbps service, annually. Similarly, an Idaho library near the Montana border is paying more than $1300 each month for wireless 5 Mbps service. The only other choice for internet is dial-up. In contrast, a suburban library near Boise pays $750 per month for 40 Mbps.

Because of the disproportionately high cost for broadband service (when it is available) and the challenges rural libraries have in securing an E-rate bid for service (let along competitive bids),

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[31] See ALA comments filed July 9, 2010, page 13, available online at
http://apps.fcc.gov/ecfs/document/view?id=7020521192.

[32] See SECA's June 2013 White Paper, page 13.

[33] Key findings from the 2011-2012 Public Library Funding & Technology Access Study, available at:
http://www.ala.org/news/sites/ala.org.news/files/content/mediapresscenter/presskits/PLFTAS%20KEY%20FINDINGS_FINAL.pdf.

ALA proposes that rural applicants receive an additional five to ten percent discount. ALA is working on data modeling around rural costs for broadband services and expects to have more detailed information available in our reply comments.

Setting Budgets or Limits (¶135-142)

While ALA appreciates the challenges in making sure that limited funds are allocated equitably, we have significant concerns about the proposal to move the program to a per-student or per-building budget-based program. ALA has begun some investigations into the impact of such a system on libraries. However, beginning with only the general concept in this NPRM, much work needs to be undertaken to identify the key variables, develop a model, populate the model with data, run scenarios, and analyze them. We have only begun such work and hope to have some perspectives to share in our reply comments. Nevertheless, if these ideas are given further consideration by the Commission, ALA suggests that the Commission issue a Further Notice on just this section alone.

More Equitable Access for Funding for Internal Broadband Connections

The conundrum of how to ensure applicants receive funding for P2 services demands attention, especially as libraries and schools consider long-term planning for high-capacity broadband solutions. Yet, there are no obvious answers that create a "win-win" solution for all applicants.

In reality, unless there is a significant increase in available funding, there will continue to be considerable unmet demand in P2. Given this stark picture, and the urgency ALA sees in ensuring access to 21st century broadband from a "whole network" perspective, we believe that it is time for a more robust compromise model discussed briefly below.

We agree that the two-in-five rule has not been as effective as first anticipated. We do believe, however, that an equitable process is achievable following SECA's rolling funding cycle. If more funding is made available for the E-rate program so that P2 funding is reliably available, allowing full funding of one discount band per funding year would provide some measure of confidence for applicants that would also allow them to plan "whole network" projects or develop an upgrade process to keep wiring and equipment up-to-date. As with other significant changes proposed, we suggest that this falls in the category of a change that must be phased in over time to allow applicants to plan accordingly.[34] While this is a fairly easy adjustment, the implications for applicants in the middle of the procurement process, or a strategic plan that includes upgrading internal connections, is potentially significant. This change should not be implemented until the 2015 funding year.

The Commission asks whether it should collapse P1 and P2 in order to allow applicants more flexibility in determining which services they need for a "whole network" solution. At this time,

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[34] In 2010 when the Commission allowed full funding of Priority 2 applications, the decision was made after the application deadline and thus many libraries in the lower discount bands had not applied. Had there been forewarning, applicants below the 70-80 percent level could have applied for and finally received funding. We respectfully urge the Commission to avoid such a scenario in the future.

ALA recommends maintaining the prioritization system. While the principle behind allowing applicants to "self-select" which services fulfill their needs, until the fund is fully resourced, the Commission will always fall into the problem of how to "divvy up" the available funding when all requests cannot be supported. If there were sufficient funds to meet all current applicant P1 and P2 demands, with the assurance that such a funding level would be sustainable, then there would be no need to continue a priority system.

Simplified Allocation of Funds to All Schools and Libraries (¶149-162)

The Commission also seeks comment on a radical restructuring of the E-rate program, which would shift funding to an allocation-based approach rather than one based on actual costs and needed services. While the simplification and predictability of this approach are appealing, the range of questions and concerns it raises is significant. Eliminating an explicit connection to the community poverty level or cost of service appear to undermine the commitment to universal service considerations and the widely varied cost of service—particularly for priority one services. Creating a new allocation formula that recognizes the varied costs would simply create new complexities to replace old ones. As the Commission notes, it is also unclear how the proposal might impact consortium applications.

The issue of an allocation also is considerably complex for libraries, which are organized in a variety of ways (e.g., municipal, county, taxing districts and multijurisdictional) that affect their legal service areas. Library technology use often is not limited to those with library cards, and libraries have different local policies related to how often they update their patron records, so using a per-patron number also raises concern. With buildings ranging from a few hundred square feet to tens of thousands of square feet, a per-building approach does not recognize the range of technology that may be offered in library buildings of different sizes with different staffing support.

At first blush, this alternative approach does not appear to meet library needs, and other more incremental changes referenced in the NPRM and addressed in our comments (e.g., eliminating the Form 470 and allow an "evergreen" 471 for multi-year contracts) could significantly simplify and streamline the application process and lead to a more equitable distribution of available funds. That said, ALA is reviewing a range of scenarios using an allocation approach to better understand the implications for libraries (as described above under Setting Budgets or Limits). We plan to comment further in this regard during the reply period.

Lowering New Build Costs and Identifying Additional Funding to Support Broadband to Schools and Libraries

President Obama launched the ConnectED Initiative in June 2013, an ambitious program to connect libraries and schools covering 99 percent of America's students to high-capacity wireless and high-capacity broadband (at speeds no less than 100 Mbps and with a target of

1Gbps) within five years. The President called on the Commission to modernize and leverage the existing E-rate program to achieve these goals.[35]

ALA welcomed the President's announcement and is pleased that the Commission has responded to the President's initiative by specifically asking whether additional funding should be provided to the E-rate program.[36] ALA has two program concepts—based on this additional funding—to propose at this time, with further detail and possibly other ideas to be submitted in reply comments.

A "ConnectUS" Program

One approach to address libraries' and schools' needs for greater broadband capability is to use the E-rate authority to allocate an additional amount of funding over a short period of time (perhaps 3-4 years) to support the deployment of "future-proof" fiber broadband capacity to libraries and schools. In many cases, the biggest hurdle to connecting libraries and schools with high-capacity fiber broadband is the one-time deployment cost, including the labor costs of digging trenches, running cables through conduit, installing remote terminal equipment, etc. Once such a network is deployed, however, the costs of operating and maintaining the network may be equal to or less than existing copper services. Furthermore, the new "future-proof" network could last for decades. Fiber optic networks, for instance, allow a library or school to increase its capacity to match growing demand simply by changing the electronics at either end of the fiber, or in some cases by implementing a software change to the existing electronics. Deploying such a state-of-the-art network can provide the library and school with significantly greater bandwidth at affordable costs for many years into the future.[37] Without timely investment in such scalable networks, we miss the opportunity to ensure our libraries and schools are able to support the connectivity needs of our communities and students as well as the current and future workforce.

There is precedent for allocating funds for such an investment program within the E-rate program. As the Commission recognizes, the E-rate program has, since the Brooklyn Order[38] been used to fund capital deployment projects on a case-by-case basis under certain conditions. Another precedent is the recent Commission decision to allocate $400 million in funding to cover deployment costs for rural health networks.[39]

Based on these precedents, the Commission could use the E-rate statutory authority granted by Congress to allocate a certain amount of new funding each year for three or four years to cover

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[35] See http://www.whitehouse.gov/the-press-office/2013/06/06/president-obama-unveils-connected-initiative-bring-america-s-students-di.

[36] See paragraphs 172-176 of the NPRM.

[37] We note, however, that to make these networks affordable on a sustainable basis, the high cost of recurring services must be addressed.

[38] See *Request for Review by Brooklyn Public Library*, *Federal-State Joint Board on Universal* Service*, Changes to the Board of Directors of the National Exchange Carrier Association, Inc*., File No. SLD49423, CC Docket Nos. 96-45 and 97-21, Order, 15 FCC Rcd 18598 (2000). ("Brooklyn Order").

[39] See *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Report and Order, FCC 12-150 (rel. Dec. 21, 2012) (Rural Health Care Order).

the costs of deploying future-proof networks to serve the broadband needs of libraries and schools. This allocation of funding for deployment costs would be in addition to and supplement the traditional E-rate program (which is primarily focused on supporting recurring costs).

The rules for this new deployment program could be the same as and/or different from the traditional E-rate program. Rather than use the current discount matrix, for instance, the Commission could choose to vary the amount of matching funds required of applicants based on the expected costs of the deployment, the rurality of the location, the economic status of the population to be served, and other factors. The rules should be designed to encourage applications submitted by consortia of libraries and schools. Further, the rules could encourage applicants to propose networks that serve libraries and schools (and other anchor institutions)[40] on a shared network in order to maximize cost-sharing and take advantage of network efficiencies. Any entity would be eligible to build the broadband network and provide the service as long as the entity meets the libraries' and schools' high-capacity broadband needs.

Funding for this deployment program would be administered by USAC, which administers all of the other USF programs. USAC's administrative operations to handle this allocation would need to be augmented and streamlined, however, to achieve the President's goal of connecting libraries and schools within 5 years. USAC will need additional staff dedicated to processing these applications and monitoring the selected projects. In this regard, USAC would benefit from the experience of NTIA staff and lessons learned from the BTOP program.[41] The FCC and USAC should find a way to benefit from NTIA's expertise in working with libraries and schools—as well as service providers and other anchor institutions and consortia formed for the purposes of building networks in infrastructure projects and partnerships for impacting public computer access and broadband adoption.

This allocation of funding for deployment costs would be consistent with President Obama's call for connecting libraries and 99 percent of students to high-capacity broadband over the next five years.

Fast Internet Networks for All Libraries (FINAL) Program:

Some libraries are deterred for various reasons from seeking much-increased broadband capabilities that would enable them to be state-of-the-art community learning centers in the digital age. Insufficient library budgets are a common reason, but restrictions in the E-rate program rules can also inhibit some ambitious projects. The FINAL program is designed to overcome these obstacles in areas for which the requisite high-capacity broadband service is currently available. The FINAL program would allow libraries to make use of cutting-edge technologies and services, both of which depend on high-capacity broadband to run smoothly. Together ConnectUS and the FINAL program reach the majority of libraries that may be struggling to meet their broadband needs.

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[40] E-rate funding could not be used to deploy network capacity to entities who are not libraries or schools (i.e., these costs would need to be cost allocated and not reimbursed by the E-rate program), but applicants should be encouraged to deploy their networks to other institutions to bring value to the community as a whole.
[41] The White House ConnectED Fact Sheet specifically recognizes the "expertise" of NTIA on page 2.

While the ConnectUS proposal addresses build-out needs to move our country forward, the FINAL pilot is intended to incent low-bandwidth libraries to take advantage of existing high-capacity broadband and thus "fast track" innovative services. Like ConnectUS, it also is intended as a temporary initiative limited to three or four years.

The libraries targeted for this program will have broadband capabilities much lower than the 100 Mbps/1 Gbps speed goals identified in ConnectED. Generally, targeted libraries will have speeds under 25 Mbps,[42] but they will have a vision for increasing their speeds by several hundred percent or more and a plan for leveraging this new capacity to support strategic community priorities.

The broadband capabilities accorded by low speeds adversely affect libraries' ability to leverage technology in realizing SEALIGHTS. Remote services such as distance education and distributed book groups or lawyer consulting services (as in Maine) depend on video conferencing and, in the future, telepresence systems. Creative technology spaces in libraries, or maker spaces, require high-capacity broadband capabilities. These and similar services provide critical access to resources and experiences that help students and adults build 21st century skills (e,g,, creating digital and multi-media projects, collaborating with peers synchronously or asynchronously). The also help bridge the gap between resources available in rural as compared to more urban areas, addressing concerns about the digital divide.

As economic growth and global competitiveness, workforce development, social interaction, and education incorporate and depend on digital experiences, libraries at the lower end of the broadband spectrum are handicapped in their ability to support learners of all ages.

Some E-rate program rules will be modified to encourage projects under the FINAL program. Internal wiring and other necessary project expenses, whether priority one or two, will be funded. Also, local or state procurement rules will be applicable, not E-rate program procurement practices. Multi-year projects will receive streamlined procedural consideration after the initial year.

The FINAL program will preference applications that demonstrate partner funding for the expenses not covered under the E-rate program, facilitated through other rule modifications as feasible. Partners include private foundations, government agencies, and corporate and private philanthropy.

Libraries participating in this program receive a 20 percent increase in the discount matrix, not to exceed the current 90 percent level, though rural remote applicants may receive up to 95 percent.

As this program is focused on smaller to medium-sized libraries that often do not have an extensive technology staff, tech support services will be provided to the maximum extent allowed under the Telecommunications Act. USAC would be funded to contract with appropriate

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[42] Such specifics need further consideration; the 25 number is offered for illustrative purposes only.

entities at the state level with the requisite expertise and geographical reach to provide such services. USAC also will fund a contract researcher to analyze the experiences of participating libraries to inform future revisions to the mainline E-rate program. In this sense, the program may be viewed as a pilot—with limited and temporary funding intended to catalyze innovation and capture best practices for advancing 21st century telecommunications-based library services.

Raise the Existing E-rate Cap

Although there is merit in limited-term interventions to accelerate the deployment of high-speed broadband in libraries and schools, the level of funding in the current E-rate program is inadequate and therefore needs to be increased on a permanent basis. At its inception in 1998, the program was funded at $2.25 billion. Today, the level of funding is $2.38 billion, or less than a 6% increase in 15 years. If the fund had been adjusted for inflation since 1998, it would currently be at $3.115 billion. Meanwhile, the need and demand for internet and broadband services has skyrocketed as we all know.

There is clear documentary evidence to demonstrate that the need is much higher than the current level of funding. Applicants submitted requests for about $5 billion in funding over the last few years, which is approximately double the cap of $2.38 billion. ALA believes it is accurate to assume that the actual demand is much higher than $5 billion, as many potential applicants have chosen not to apply for funding because they know that funding is not available for P2 services. Finally, a number of libraries decide not to apply because of program complexity or other reasons which means that the true need is yet even higher.

ALA concludes that the E-rate program is severely underfunded, and urges the FCC to consider the alternatives for increasing the funding level permanently to address more of the needs of libraries and schools.

IV. Maximizing Cost-Effectiveness of the E-rate Funds: Goal 2

ALA agrees with the Commission that various bulk buying models have the potential to drive down the cost of services. We use this opportunity to voice concerns that the E-rate program has not yielded the desired lower costs for broadband services to date.

Increasing Consortium Purchasing

We agree with the Commission that consortium purchasing can often be beneficial for applicants and can decrease cost for services (¶179-185). Unfortunately, the E-rate program as currently established is not very "consortium friendly." Even the basic application forms (i.e., 470, 471) are targeted more towards applications from individual schools, school districts or libraries. In paragraph 182 the Commission asks about the "burdens the program imposes today" on consortium applications. Here are several examples:
- We know of a state-wide consortium where the post application review process by the Program Integrity Assurance (PIA) unit of USAC was so onerous and time consuming that

the consortium disbanded after several application cycles and the libraries are now all applying as individual units.

- By their nature, consortium applications take more time to review and thus are often the last applications to be funded in any given E-rate year. For example, in research for this NPRM we have heard from a number of library consortia that their applications are often 18 months or more behind in receiving discounts. On the other hand, one state now files individual applications for each library member of the state-wide consortium and is almost fully funded for FY2013. While creative, this work-around is not the mark of a successful system. This time delay is a significant factor in why libraries often do not want to be part of a consortium application.

- It is not unusual for a PIA reviewer to ask the consortium staff for some type of documentation but then many months pass with no further contact. (Non-consortium applications are also plagued with this problem). Applicants are given a specific time deadline to respond to any PIA queries but PIA has endless time on its side of the application review process.

If the Commission wants to encourage consortium applications it needs to address these issues in a meaningful fashion. Certainly one suggestion, as referenced in paragraph 182, is to prioritize the consortium application review process.

Much of the section on consortia is focused on purchasing but we think the Commission should also encourage libraries to participate in consortia broadband networks, when they are a cost effective way to secure connectivity (¶184). In many of these networks (usually called Metropolitan Area Networks, MANs; or Community Area Networks, CANs) the municipal government (with the library) is the anchor tenant. These networks often include other community anchors like schools, community colleges and local medical clinics. We recommend establishing a "best practices" program (¶175, ¶220) to provide incentives encouraging libraries and schools to participate in these multi-type community networks. For example, in Wisconsin the Chippewa Valley Internetworking Consortium (CINC, http://cincua.org/) was formed in 1999 to provide "Broadband Serving the Public Interest." CINC offers fiber connectivity to over forty community anchors—including schools and libraries—at much lower costs than commercial alternatives.

Increasing Transparency

ALA supports the concept of making the various processes and administration of the program more transparent so that applicants can determine at which prices services should be available and how having that knowledge might aid in improving the competitive bidding process. We encourage the Commission to take advantage of processes already in place rather than creating new ones that will add to the complexity or burden of the application process. Specifically, Commission rules already require that "service providers retain records of rates charged and discounts allowed for eligible schools and libraries" (¶197). We suggest that this information be included in a searchable format on the USAC website.

The Commission also seeks input on supports that could be provided by USAC for applicants in determining cost-effective solutions (¶198-201). We know that library applicants do take advantage of the current help systems available through USAC. At the same time, however, state library agencies can and do play this role through a network of state E-rate coordinators, specialists in the E-rate program who are well versed in local needs and challenges. ALA respectfully suggests that, rather than creating an additional role for USAC, it consider ways to support these valuable state support networks.

Improving the Competitive Bidding Process

We sympathize with the FCC's desire to see more providers bid on applications. But there are various reasons why many applicants get few—or no—responses to the form 470s they file. The lack of bidding is especially pronounced in rural communities where there is usually just one telecommunications provider. This provider is often the only Internet provider in the community too. We heard from states as diverse as Idaho and Montana, and Nebraska to Arkansas, Kentucky, and New York that their rural libraries often receive one or no bids. In one state, the state E-rate coordinator noted that 55 percent of the library applicants received no bid. This is a stark example, but similar ones are repeated across the country. With the industry trend to get out of the traditional voice (POTS) service,[43] we see few circumstances in which rural communities will have a choice of providers. The result of this is that no change in the E-rate application process (¶202) or E-rate forms will produce the competition the FCC desires. Therefore, we have concerns that some of the FCC's proposals to create competition will only increase the burden on applicants. For example, having separate requirements for applicants that receive no bids (¶204) will likely only lead to more intrusive questions by PIA as part of the review process and result in lengthy delays in getting funded. This violates goal 3 on program streamlining. Rather than requiring libraries to comply with even more application rules, it is more reasonable and helpful for USAC to post purchasing guidance—including information on state master contracts—on its website. State library and education agencies can assist in this effort.

In comments ALA filed in 2005[44] we supported allowing applicants to use state or local procurement requirements, including their competitive bidding procedures, instead of the FCC's E-rate procurement rules (¶206). The E-rate program is extremely proscriptive when it comes to procurement policies, and this is unnecessary as libraries already have procurement rules for most everything else they need to purchase to operate. ALA strongly urges the FCC to adopt this change.

If the Commission does not want to exempt all applicants from its procurement rules, we suggest it set a *de minimus* funding request for exemption. In checking with several states it appears that a *de minimus* threshold of $5,000 per applicant or less will exempt at least one-quarter of all applicants. Of note, if this *de minimus* level were for the specific funding request we estimate

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[43] AT&T stated this succinctly in a December 2009 filing with the FCC: ―With each passing day more communications services migrate to broadband, leaving plain-old telephone service (POTS) as relics of a by-gone era. With an outdated product, falling revenues, and rising costs, the POTS business is unsustainable for the long run. See http://fjallfoss.fcc.gov/ecfs/document/view?id=7020354032.

[44] ALA comments filed October 18, 2005, page 14. See http://apps.fcc.gov/ecfs/document/view?id=6518170188.

that about two-thirds of applicants would fall below this threshold. Such requests would still be subject to state or local procurement regulations. This proposal will streamline the application review process and result in substantial savings compared to the current process. We anticipate that this will also result in a considerable number of these applications being approved by July 1.

The Commission seeks comment on the role that the "lowest corresponding price" (LCP) rule has on competitive bidding (¶39, 82, 209). We posit that the great majority of applicants have no idea of this rule's impact because they have no information on a provider's LCP. We do not think it is the applicant's responsibility to determine LCP violations; this is the Commission's responsibility. Because current FCC regulations require providers to retain pricing data, we suggest that USAC do periodic requests from providers for price data related to this rule. In addition, a LCP review should be generated whenever a provider's bid for broadband services is above a certain threshold. The bandwidth threshold or "flag" could be the one the FCC establishes in its bandwidth price guidelines as stated in paragraph 89.

Efficient Use of Funding

Considering the pressure placed on the limited E-rate funds, we hope that all parties want to ensure that funds are used in an efficient and effective manner. Yet ALA is concerned that some of the suggestions posed by the Commission will needlessly burden applicants without addressing issues of efficiency and effectiveness. In addition, some of the proposals will definitely increase program complexity and violate the NPRM's third goal of simplicity.

For example, we are very concerned that adopting bright line tests, benchmarks or formulas for determining the most cost-effective means of meeting an applicant's technology needs will be too rigid (¶213). We submit that there can be no "one size fits all" set of metrics to address all the variables in technology needs and prices for E-rate eligible services. If the Commission were to impose specific metrics there would still need to be a process for exceptions. Such an outcome is in direct opposition to the simplification goal which ALA whole-heartedly endorses.

The proposal in paragraph 214 to "Require that an applicant regularly use all of the functions provided by an E-rate supported service" is unproductive. In response to this proposal we pose this question to the Commission: If a library is getting E-rate support for Internet access, we posit it would be challenging at best to define "all of the functions" of Internet access and that this is an opening for instances of abuse as it would be extremely difficult to monitor that all functions were being used.

We do think a positive action in this area is the recommendation that the Commission encourage applicants to consider the long-term cost of services. This is especially important for broadband connectivity (¶216) and is referenced in our above comments on WAN ownership.

Broadband Planning and Use

ALA encourages all libraries to undertake continuous planning and assessment of their current and future technology needs, including broadband connectivity. But we do not think such

planning and assessment should be an E-rate mandate (¶217-218). In our opinion, in 2010 the FCC correctly withdrew from mandating planning and assessment when it eliminated the technology plan requirement for Priority 1 services.[45] Requiring libraries to review and assess their broadband needs sounds very much like the Commission is getting back into the technology planning process. This proposal creates another layer of complexity, another mandate that can result in funding denials, and thus violates the NPRM's third goal of program simplicity.

V. Streamlining the Administration of the E-rate Program: Goal 3

Proposals that Will Increase Program Complexity and the Burdens on Applicants

As stated above, the American Library Association firmly supports all three goals the FCC proposes for the E-rate program, including goal 3 on streamlining program administration. But we are very concerned that various proposals in the NPRM will actually increase the program's complexity and place additional burdens on applicants. This will very likely result in the following cascade of events:

- More detailed, lengthy review of applications
- Further delays on funding decisions
- Increased denials resulting in increased appeals
- And overall, increased applicant frustration.

Below we have identified several of the NPRM's proposals that will not lead to simplification but will result in just the opposite—more program complexity. Each of the issues is discussed in more detail in the relevant section of this document, depending on which of the three goals the proposal relates to.

- Should the FCC impose measures tying E-rate funding to educational outcomes? (¶40). While primarily impacting schools, this is way beyond the purposes of the program as stated in the law.
- Should the FCC phase in maximum per-megabit prices? (¶89). There will need to be exceptions to any price maximum based on factors like geography, lack of competition, etc. Exceptions often result in more complexity. Also, in part to reduce the burden on applicants, we propose the FCC solicit per-megabit cost data from providers. (The purpose of this is to establish price *guidelines*, not mandates.)
- Should the FCC narrow the definition of "educational purposes"? (¶99-100) We think the FCC best stated the issues with doing this. "Would placing limits on funding for services that are not directly available to students or patrons be too difficult to monitor or audit or raise cost-allocation challenges?" Our answer is: Yes.

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[45] Paragraph 58 in the Sixth Report and Order released September 28, 2010. See http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-175A1.pdf.

- Should the FCC require applicants to purchase from state master or regional contracts unless they can receive services for a lower price? (¶186). We think such a requirement is not needed, is too intrusive, and will be difficult to enforce.
- Should the FCC make applicants release bid responses to the public or to other E-rate applicants? (¶195). As the FCC itself recognizes, many bid responses have proprietary information that cannot be disclosed. Requiring applicants to redact such information will be extremely time-consuming.
- Should the FCC have separate requirements when applicants receive no bids from service providers? (¶204). We strongly oppose placing more bid requirements on applicants when the problem resides with the marketplace, or lack thereof.
- Should the FCC require applicants to regularly use all of the functions provided by an E-rate supported service? (¶214). We believe it is not possible to develop a list of all such functions and thus very much oppose this.
- Should the FCC require applicants seeking E-rate funding for high-capacity broadband to undertake a formal review and assessment of their broadband needs? (¶217). We view this as an attempt to reintroduce a technology planning mandate and oppose it.
- Should the FCC require applicants to submit any and all documentation related to any and all bids received as part of the Form 471? (¶298). This is way beyond reasonable and we strongly oppose it.

Speeding Review of Applications, Commitments Decisions, and Funding Disbursement

One of the most frustrating aspects of the E-rate program for applicants is that many are not notified by USAC that they have been funded (or not) by the July 1 start of the funding year.[46] We agree with the GAO recommendation[47] that the Commission undertake a risk assessment of the E-rate program as a way to help identify ways to expedite the application review process (¶233). Here are several suggestions we have to speed the application review process.
- As referenced above, having a truly expedited review process for applications requesting a minimal amount of E-rate support could result in far more applications being approved by July 1. Related to this, we suggest the Commission set a deadline of July 1 of the funding year for USAC to complete 80% of funding requests of less than $5,000 per applicant.
- We think there should be a separate, expedited review process for applications filed under State Master Contracts (SMC). These contracts are bid under procurement requirements far more stringent than the E-rate's and thus these applications should be exempt from E-rate procurement rules and placed on a "fast-track" review and approval process.
- Consortium applications filed by state government agencies should be exempt from the E-rate's bidding requirements and minimally reviewed.[48] These applications can include hundreds of schools and libraries and are almost never approved by July 1.

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[46] In 2012 no applications were funded by July 1, 2012.
[47] See generally http://www.gao.gov/assets/320/310686.pdf.
[48] Most State applications are actually for services (e.g., broadband) that are bid out following stringent state bidding requirements.

- We support SECA's proposal in paragraph 236 that applications including requests from different providers not be held up in order to resolve a legitimate issue with one funding request number. Applicants should be notified that there is a concern in a timely manner.
- We recommend a more expedited review process for multi-year contracts (¶239). This recommendation has been made by many organizations, including ALA,[49] for many years and we strongly encourage the Commission to adopt it in this proceeding.

Related to the last bullet above, we agree with the FCC's proposed language in paragraph 241 to allow applicants to file a Form 471 once for multi-year contracts. We also think applicants will understand that multi-year funding commitments are conditional on funds being available in subsequent years and thus do not see this as any impediment to implementing an "evergreen" 471 process (¶242).

We encourage USAC to reach a funding decision on the great majority (e.g., 90 percent) of applications by July 1. But without additional staffing support for USAC, doing this will likely require USAC to have a much earlier form 471 application deadline, which we do not support. As stated above, we think a more targeted, short-term goal is to make a funding decision by July 1 on at least 80 percent of the applications requesting less than $5,000, moving towards the more comprehensive goal in the longer term.

We think the current process and timeframe to submit information in response to a USAC or PIA request is reasonable and we thus oppose imposing more limits on the number of opportunities and length of time applicants have to respond (¶237). In most instances it is not the applicant that causes the delays in reaching a funding decision; it is USAC's PIA review process. Applicants often submit requested documentation to PIA in a week or two but it still then takes PIA months to make a funding decision.

We do not think it is reasonable for the Commission to set a three-year limit on the length of contracts, especially when it is proposed that this limit includes any voluntary extensions. We simply think this rigid time frame is too limiting and propose a limit of five years before the applicant would have to file a new from 470.

Simplifying the Eligible Services List (ESL)

We support the Commission's proposal to (1) remove the current regulatory classifications on the ESL and on forms 470 and 471, and (2) allow applicants to request E-rate eligible services from any entity (¶248). The FCC's *Sixth Order* allowed any entity to provide fiber connectivity, and we continue to support that decision. We think the proposal in this NPRM to allow any entity to provide any service is just a logical extension of the Sixth Order's language in this area. We wish to be clear, however, that we are not proposing that the categories should change on the 471where applicants would still select the category of service.

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[49] See http://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/telecom/erate/NPRMALAfinal18oct05.pdf, page 14.

For CIPA certification we agree with SECA[50] and think that CIPA certification can simply be done via a checkbox on Form 471 or the 486 (¶251).

Invoicing and Disbursement Process

We think one of the best proposals to streamline the program is to allow applicants using the BEAR payment process to receive their E-rate funds directly from USAC (¶261). ALA has supported this dating back to comments we filed in 2005.[51] Implementing this proposal will be of benefit to both applicants and service providers. Furthermore, we think that Section 254 of the Telecommunications Act of 1996 gives the Commission broad discretion on how to design the E-rate program and the law does not in any way prohibit direct payment to applicants. As long as libraries have already paid the provider, a declaration to this effect can be included via a revised BEAR form.

We think it will be to the applicant's benefit to revise the program rules allowing them an automatic 120 day extension of the filing deadline for all services (¶265). We also think a timely notice by USAC to applicants who have not met the 120 day deadline will be useful.

VI.   Other Outstanding Issues

The Children's Internet Protection Act

Our position on CIPA compliance is straight-forward and we believe it is fully supported by the language in the law. In brief, we believe that─ when read in the context of the law─the phrase "any of *its* computers with Internet access" [emphasis added] clearly refers to school or library owned devices (¶274). Therefore, CIPA applies to devices owned by the school or library but does not apply to devices owned by students, staff or library patrons. If libraries or schools want to filter devices they do not own, that is a local decision but is not a requirement of the law.[52] We strongly oppose the broader interpretation of this key phrase that CIPA covers any device, regardless of ownership (¶274).

Identifying Rural Schools and Libraries (¶ 276-281)

Use library-specific geocoding to identify rural libraries
ALA welcomes the opportunity to refresh the record as it relates to identifying rural libraries. The Institute of Museum and Library Services (IMLS) has replicated for libraries the geocoding National Center for Education Statistics (NCES) created for schools and provide urban-centric locale codes for library outlets. The IMLS locale codes define rural as "rural, fringe;" rural, distant" and "rural, remote." ALA recommends using these IMLS locale code designations for "rural" areas along with "town, remote" and "town, distant" to define "rural" for purposes of the

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[50] See SECA's White Paper, June 2013, page 18.
[51] See ALA comments filed October 18, 2005, page 24. See
http://apps.fcc.gov/ecfs/document/view?id=6518170188.
[52] ALA has always been a strong advocate that libraries must have Internet Acceptable Use Policies (AUP). Filtering devices not owned by the library should be addressed in the library's AUP.

E-rate program to ensure greater funding to libraries in truly rural areas and communities distant from urban cores. Because the E-rate program is intended to provide support to specific institutions, it is logically consistent to use institution-specific locale codes. IMLS uses the same methodology and definitions for locale codes that NCES uses. Today a public library can determine its assigned locale code by looking at the agency's public data files[53] from the Public Library Survey. IMLS also can make this information more easily available in the future through a data look-up tool, which ALA supports.

Addressing Changes to the National School Lunch Program (¶282-293)

Changes to the National School Lunch Program may demand changes in how library discount rate is calculated

As with locality, there are many different measures of poverty used by different federal and state agencies, all based on Census data, but with various permutations. As the FCC notes, libraries currently use the school district's National School Lunch Program (NSLP) discount rate to calculate their discount. There are several advantages to using this program, including that eligibility requirements are the same across all states (consistent and generalizable), the data are regularly updated, and they are familiar and easy to use by library applicants. Additionally, NSLP data includes categorical eligibility rates such as cost of living that better reflect local conditions.

The introduction of the Community Eligibility Option (CEO) for the NSLP may present a problem, however, as schools that elect CEO will no longer collect the needed NSLP eligibility data. If this becomes more common, Census poverty rates at the block or track level linked to library outlets may become necessary to provide needed granularity for determining the E-rate discount for libraries. IMLS would be well-positioned to work with FCC on developing appropriate procedures for developing an alternative income eligibility methodology that is credible, current and does not add to burden to library applicants. If Census poverty rates are used, an alternative discount schedule would be required, however, to ensure that libraries in CEO school districts are not at a disadvantage, since the poverty rate is a more stringent eligibility requirement than NSLP eligibility and has a different statistical distribution.

Wireless Community Hotspots

In paragraph 319 of the NPRM the Commission asks for comment on whether "to permit schools to provide wireless hotspots to surrounding communities using E-rate supported services." As an initial matter, ALA assumes that the Commission did not intend to exclude libraries. As evidenced by the SEALIGHTS concept, libraries already provide public internet access and a full range of internet-enabled services to the entire community. If the Commission rules to permit this use, it should be equally available to all E-rate eligible entities (i.e., libraries and schools).

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[53] IMLS data files and documentation available at: http://www.imls.gov/research/pls_data_files.aspx.

ALA has a number of outstanding questions about this proposal and will continue to review models during the reply period.
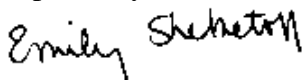
Procedures for National Emergencies

Libraries are often the collecting point for emergency responders as well as displaced families and individuals during and following disasters. Unfortunately, we have numerous recent examples that point to the critical link these libraries provide their communities. We commend the Commission and USAC for providing special exemptions on a case by case basis for libraries and schools so that they may rebuild after such devastating events as Hurricanes Katrina and Rita or in the recent floods in Iowa. Because of the critical role both libraries and schools play for their communities—whether by providing physical space and internet access or by providing the critical emotional support by being a safe community haven—ALA supports the Commission's proposal to regularize procedures for natural disasters and other emergencies.

VII.   Conclusion

ALA staff, counsel, and member-leaders have spent hundreds of hours on this NPRM. Though a lot of work, it is an exhilarating experience to critically assess a federal program in its entirety and offer ideas for improvement. ALA appreciates this extraordinary opportunity and looks forward to preparing reply comments and discussing our views with the Commissioners and staff of the FCC. For the reasons expressed above, ALA urges the Commission to adopt rules and guidance that are commensurate with our comments.

Respectfully submitted,

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